

App. No. 10/750,520

Reply to Office action of December 1, 2004

REMARKS/ARGUMENTS**A. Summary of the Amendment**

This is a full and timely response to the non-final Office Action dated December 1, 2004. Reexamination and reconsideration are courteously requested. By way of the present amendment, claims 13, and 20 are amended. Further, claim 25 is added and claims 1 to 12 are canceled. Thus, claims 13 to 25 remain pending for the Examiner's consideration, with claim 13 being the only independent claim.

B. Rejections Under 35 U.S.C. § 112, Second Paragraph

Claims 13 to 24 are rejected because the language "encompassing said nanophase metal powder" from claim 13 allegedly renders the claim indefinite. The Examiner asserts that the disputed phrase literally means that the powder is loose or amorphous.

This rejection is respectfully traversed, although an amendment to claim 13 is made in an attempt to overcome the rejection without narrowing the claim scope. It is respectfully submitted that without amending the claims it would be understood that in order to perform the claimed step of consolidating the powder, the powder would be grouped together in some shape. The present amendment provides an express recitation that some shape is provided to the powder, and basis for the amendment is found in paragraph 0023 of the specification, and in FIG. 5, which illustrates the powder grouped together in a shape during the compression steps 33 and 34. For these reasons, it is respectfully requested that the rejections under 35 U.S.C. § 112, second paragraph be withdrawn.

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C. Rejections Under 35 U.S.C. § 102

Claim 1 is rejected as being anticipated by U.S. Patent No. 4,501,718 ("Bradt"). These rejections are moot because claim 1 is canceled by way of the present amendment.

D. Rejections Under 35 U.S.C. § 103(a)

Claims 1 to 12 are rejected as being unpatentable over U.S. Patent No. 6,630,008 ("Meeks"). These rejections are also moot because claims 1 to 12 are canceled by way of the present amendment.

Claims 13 to 24 are rejected as being unpatentable over Meeks in view of U.S. Patent No. 5,080,712 ("James"). These rejections are respectfully traversed.

The combination of Meeks and James fails to teach or suggest each and every feature of the pending claims. Independent claim 13 recites a method for consolidating a shaped nanophase metal powder, which comprises encompassing the powder with a flowable pressure transmitting medium, and then performing two compressing steps. The two compressing steps are performed at increasing temperatures, and each step includes compressing the pressure transmitting medium that encompasses the shaped powder. Meeks teaches the use of a granular pressure transmitting medium to consolidate a heated powdered preform, but fails to teach or suggest a method in which two compression steps are performed using the granular pressure transmitting medium, with the second compression step performed at an increased temperature relative to the first compression step.

James is cited to compensate for the deficiencies of Meeks. The Examiner asserts that James discloses a method in which two compression steps are performed to consolidate a powder article. Yet, because James is in no way related to the field of compression using flowable pressure transmitting media, a person of ordinary skill in the art of compressing using such pressure transmitting media would not find motivation from James to modify Meeks (which is related to such compression methods) and thereby arrive at the present invention.

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Further, even though James teaches pressurizing a component twice, there is no teaching or suggestion in James that the second pressurization is performed at a higher temperature than the first pressurization. In fact, when referring to the pressurization temperature, James discloses nothing more than performing the second pressurization after cooling the object to room temperature (col. 6, lines 24 to 27). All heating steps disclosed by James are presintering steps or other heating steps that are performed before or between the pressurization steps, but the heated objects are cooled and tested for density or other properties before being pressurized. Consequently, none of the prior art references teaches or suggests that a second compression step is performed at an increased temperature relative to the first compression step. "To establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. In re Royka, 490 F.2d 981, 180 USPQ 580 (CCPA 1974)." M.P.E.P. § 2143.03. Accord. M.P.E.P. § 706.02(j). For the foregoing reasons, it is respectfully requested that the rejections of claims 13 to 24 be withdrawn.

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E. Conclusion

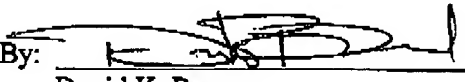
In view of Applicant's amendments and remarks, it is respectfully submitted that Examiner's objections and rejections have been overcome. Accordingly, Applicants respectfully submit that the application is now in condition for allowance, and such allowance is therefore earnestly requested. Should the Examiner have any questions or wish to further discuss this application, Applicants request that the Examiner contact the Applicants attorneys at the below-listed telephone number.

If for some reason Applicants have not requested a sufficient extension and/or have not paid a sufficient fee for this response and/or for the extension necessary to prevent abandonment on this application, please consider this as a request for an extension for the required time period and/or authorization to charge Deposit Account No. 50-2091 for any fee which may be due.

Respectfully submitted,

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Dated: JAN. 31, 2005

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